



the RARA RAG

Published by
ROCHESTER AMATEUR RADIO ASSOCIATION, INC.

VOL.53

MARCH 2001

NO. 7

An Official ARRL Visit At The March RARA Meeting

Peter Fournia, W2SKY

Our ARRL Western NY Section Manager, Scott Bauer W2LC, will address us at the March 2nd meeting. The topic might best be called "The care and feeding of Amateur Radio". This will be an informal exchange of information between the audience and our section manager. It is a golden opportunity for you to gain insight into the ARRL and how it is administered in the field. It is also one of your best chances to influence the direction of our hobby! The ARRL has a profound influence on FCC and international decisions. You can influence the ARRL. One of Scott's purposes is to listen to your opinions and arguments. It will impact his actions and the messages he carries back to our Atlantic Division Director Bernie Fuller.

Our hobby is still reacting to changes in technology, our life style and pace of living, global issues and political issues. Some of the hottest issues we face are: more restrictions to antennas, possible elimination of CW licensing requirements at the international level, elimination of the Novice and Advanced class license by the FCC, and our shrinking membership... to name a few. The ARRL has been coping by adjusting operations and programs.

Do you think that the ARRL is on top of this change? Are they over reacting, under reacting, following or correctly anticipating change? Are you aware of what the ARRL is doing about it?

Scott will be addressing many of these issues. In some cases the ARRL has clear direction and
continued on page 6

Hamfest Programs – Part II

Lloyd R. Caves, WB2EFU

It is getting closer to the Rochester Hamfest/Atlantic Division Convention dates all the time. Are you thinking about the Hamfest yet? It is never too early to start you know? Even though a large percentage of the Hamfest is outside (the flea market) don't forget what is taking place inside. All the large manufacturers and dealers will be inside the Dome. Not only that but the large Awards Banquet on Friday evening is also inside at the Marriott Hotel. Get your tickets early and join your friends for dinner and fun. Come right from the fair grounds to the Marriott, no need to go home and get cleaned up first. This should be one long day of enjoyment!

The Hamfest committee is also lining up some very interesting speakers and topics for you. Below are just a few of the programs that you may want to keep in mind and get on your schedule.

Digital Communications:

Bill Hopkins, AA2YU will present a program on digital modes available to amateurs with emphasis on PSK31 and MFSK16. This is a good place to learn more about these modes and how you can get started on them. See what equipment is used and how easy they can be to get on the air.

Hands On Antenna Construction:

Ed Hare, W1RFL, the ARRL Laboratory Supervisor, shows you how to build a 2-meter Yagi beam using parts and materials you can buy at Home Depot! It can't be that hard — Ed actually builds the antenna with a blowtorch while wearing a tie, all the while telling you about how he designed this simple antenna that actually works on the air. If he is as good as he says he is, he will have plenty of time to answer your antenna questions. See if you can "Stump the Speaker" by asking him a question he can't answer!

DXCC in 2001:

This will be an update of issues relating to the ARRL DXCC program, including the addition of new band-DXCC awards for 12 and 17 meters, the DXCC Challenge and DeSoto Cup competition. Dan Henderson, N1ND, ARRL Contest Branch
continued on page 4

RARA Meeting

March 2, 2001

Henrietta Fire Hall,
3129 E. Henrietta Rd.

ARRL Update

Presented by Scott Bauer, W2LC
Western New York Section Manager

the RARA RAG

PUBLISHED BY
ROCHESTER AMATEUR RADIO ASSOCIATION, INC.
P.O. Box 93333, Rochester, NY 14692-8333
RARA Hotline 442-0587 Website: www.ggw.org/rara/

Editor.....Lloyd R. Caves, WB2EFU
652 Beverly Drive, Webster, NY 14580-2305 (716) 747-1225
Internet: wb2efu@frontiernet.net

Assistant Editor.....George Platteter, AA2FO
82 Colonnade Drive, Rochester, NY 14623 (716) 334-4468
Internet: aa2fo@pa.net

Editorial Assistant.....MaryKay Vesco, KC2DPG
310 East Commercial Street, E. Rochester 14445 (716) 381-7773

VOL. 53 MARCH 2001 NO. 7

OFFICERS:

President: Keith Freeberg, N2BEL.....458-8246
Internet: kff@frontiernet.net
Vice-President: Peter Fournia, W2SKY.....377-0535
Internet: w2sky@arrl.net
Secretary: Howard J. Greenwald.....387-0280
Internet: hjgreenw@frontiernet.net
Treasurer: Richard Goslee, K2VCZ.....334-1762
Internet: rgoslee@rochester.rr.com

BOARD OF DIRECTORS:

MaryKay Vesco.....381-7773
Internet: kc2dpg@banet.net
Jaime Ananko, N3ZSS.....292-0032
Internet: jananko@aol.com
Edwin Holdsworth, N2EH.....624-1929
Internet: n2eh@frontiernet.net
Scott A. Blystone, NY2A.....247-2820
Internet: ny2a@blystone.net
Jack Tripp, N2SNL.....381-7757
Internet: n2snl@arrl.net
Allen E. Skiles Sr., W2AES.....352-1087
Internet: w2aes@arrl.net

Club Historian: Ed Gable, K2MP
Public Service Coordinator: Edwin Holdsworth, N2EH
License Testing Director: George Platteter, AA2FO
Membership Chairman: Alex Piccirilli, NV2Y
Hamfest General Chairman: Harold Smith, K2HC
K2JD Engraving: Edwin Holdsworth, N2EH
Public Relations: Keith Freeberg, N2BEL
License Class Director: Tim Magee, WB2KAO
Web Page Administrator: Peter Fournia, W2SKY
Club Station Trustee: Edwin Holdsworth, N2EH

The RARA RAG (USPS 605-440) is published monthly except July and August by the Rochester Amateur Radio Association, Inc., 24 Elaine Drive Rochester, NY 14623. Subscription is \$5.00 per year (included in the annual membership dues and may not be purchased separately). Periodicals postage paid in Rochester, NY.
POSTMASTER - Send address changes to The RARA RAG, P.O. Box 93333, Rochester, New York 14692-8333. Full permission is granted for reprinting articles provided a credit line is given to the RARA RAG. The RAG exchanges with other organizations' publications.

RARA RAG 2

Kids Use Radio To Quiz Local Superintendent

Keith Freeberg, N2BEL

The students at Thomas Jefferson Middle School took the opportunity of having amateurs and radios in the classroom to quiz Dr. Clifford Janey, Rochester City School District Superintendent, about their studies and his plans for the city school system. The date, February 1st, was just two days after Dr. Janey had announced his new initiatives for the district.

About twenty sixth graders were introduced to the capabilities of amateur radio through the RARA Radio Coaches Program when Joe Walker III, KA8WJH (control op for Dr. Janey) and Keith Freeberg, N2BEL (control op for the students) initiated the informative dialog. One Coach was heard to remark afterwards that Dominic Bono, school principal, kept cheering the kids on during the whole exchange.

Each of the students had been given phonetic alphabet and communications skills training by a team of Coaches — Jim Reilich, WB2YJH; Keith Bozek, N3HGN; Peter Fournia, W2SKY; Wynona Walker, N2UEE; and Fred Case prior to the interview with Dr. Janey. The students and two home-schooled hams, Nicholas, KC0FBP and Britta, KC0FBQ who also joined the questioning all to the delight of Dr. Janey who instantly gained insight that this is an avocation for young people as well.

Our original time slot was seemingly magically expanded when Dr. Janey, so enthralled answering student questions, completely forgot about his next appointment and ran twenty minutes over with the Coaches and kids. When Dr. Janey reluctantly left his office to attend his next business meeting there was a satisfied smile on his face. Amateur radio has made a hit with city schools and with the students as a means of expanding their educational horizons.

My thanks go out to all the Coaches who made this success possible, those in class and the many behind the scenes supporting the efforts of those who do the in-class presentations.

NEXT RAG DEADLINE
March 9, 2001

Rochester Hamfest
June 1, 2, And 3
2001

Are you a member of the ARRL? If not, why not? If you are you know about what some of the advantages are and what is going to be said here. If you are not then you should continue reading. RARA is an affiliated club with the ARRL as well as being a Special Service Club. That means that RARA goes over and beyond what some clubs do and yet only 65% of our members are members of the league. The ARRL goes over and beyond for its members too. Don't think that joining the ARRL is just signing up for a magazine.

QST is a great magazine and a good benefit to being an ARRL member, however, they are also the national organization that is looking out for your interests whether you are a member or not. They are the only organization that has legal staff working in Washington to be sure that new laws will benefit Amateur Radio and not be a detriment to it. They also are our representatives at the International Telecommunications Union to make sure we don't lose our frequencies and if possible gain some for us as in the past. They offer assistance at local government levels with RFI and tower cases when the hams have done all that they can by themselves.

These are major steps they take to be there for us. They, however, do other things that make it beneficial to being a member. They staff a lab to test equipment and give you the results to help you decide what rig you buy next. This lab keeps other spectrum users operating within their limits so as not to interfere with us. If a problem does exist it helps both parties to solve it. They run the QSL bureau so we can get QSL cards to and from DX stations at a fraction of the cost to us. They operate the Awards Department and Contest Department so that we can enjoy DXCC, WAS, WAC, CQWW, VHF Contest, etc.; a large part of the operating habits of many of us.

Your membership dues bring all this and more to you as well as a magazine. There are a lot more benefits to being a member that you will learn about when you join the ARRL. If you are not a member now, consider becoming one and support Amateur Radio with the only tools that we have.

RARA HOTLINE
(716) 442-0587

SILENT KEY

FREDRICK R. GERN, K2FR
January 30, 2001

Greater Rochester Area Youth Net (GRAYN)

Keith Freeberg, N2BEL

Kids love to talk to kids and in this venue that is just what they do under the skillful guidance of a mentor. You too can be a mentor in only 15 minutes – once or as many times as you want! All you need is any type of a two-meter rig capable of making solid contact through the GRA or RRRRA repeaters.

All it takes is just fifteen minutes. That's right, the Greater Rochester Area Youth Net (GRAYN) continues to meet weekly on the air waves to provide a place for young people to learn about and talk about amateur radio in a environment all their own. If you know of young people in your neighborhood that might like to talk to other people their age through the 'magic' of radio invite them to your station.

Take 15 minutes to interest a young person in amateur radio. Tune in and sign on to the Greater Rochester Area Youth Net (GRAYN) during one of the following times:

Month	Day	Time	Frequency
February	22	19:30 EST	146.88
March	1	19:30 EST	146.79
	8	19:30 EST	146.88
	15	19:30 EST	146.79
	22	19:30 EST	146.88
	29	19:30 EST	146.79
April	5	19:30 EST	146.88
	12	19:30 EST	146.79
	19	19:30 EST	146.88
	26	19:30 EST	146.79

Check in and show your support for young aspiring amateurs and accomplished young hams alike.



RE/MAX Realty Group
Licensed Real Estate Broker

40 Grove Street
Pittsford, New York 14534-1317

Bus: (716) 389-1028
Fax: (716) 442-3905

E-mail: toni@toniconnors.com
E-mail: paul@paulmackanos.com

Each Office Independently Owned and Operated



PAUL MACKANOS
Sales Agent
K2DB



TONI CONNORS
Associate Broker

50 Years Combined Experience

MLS, CRS, GRI

RARA RAG 20 Years Ago, March 1981

Ed Gable, K2MP

The March meeting was presented by Mr. Pete Chaston of the National Weather Service in Rochester. Mr. Chaston told us, amongst other things, the effect of the Mt. St. Helens eruption on our weather and of all of the new electronic forecasting gadgets at their office. H. Munday, KD2K, wrote on the local results of the ARRL January VHF Sweepstakes contest. Highest single operator was Len, WA2ZNC, followed by Chuck, K2YCO. Highest multi-op was K2JFV followed by W2UYH. The highest FM score was Irv, AF2K. Otto Bluntzer, WB2RJB, wrote of the just completed RARA Valentine Dinner-Dance with 70 happy participants. Secretary Dave Coleman, N2AOB, writing for the RARA Board, reported that RARA will no longer buy beer for the picnic. BYOB is the new policy. Craig Stolze, WB2AQQ, writing for the RRRA, reported on the improved 78/18 Bristol repeater now featuring many new operating options. The RRRA also informed readers that they would co-sponsor a Ham Auction with the Rochester VHF Group on February 20th at the Police and Fire Academy. When to, and when not to jump into DX pileups was a well written article by Rick Berg, WA2RLQ. It is still good reading. The Heathkit Electronic Center on Jefferson Road featured a Heath Cantenna Dummy load, with oil, for \$21.95. From the want ads you could buy a Heath SB-230 Linear Amplifier from Al Mumby, WB2MCP, for \$350.00.

W2OMV And K4VOS RARA Scholarship Fund

Available To Members

Deadline April 15, 2001

Applications At Club Meetings
Or By Mail

RARA
PO Box 93333

Rochester, NY 14692-8333

By Phone
442-0587

On Website

www.ggw.org/rara/scholarship.htm

RARA RAG 4

Comments And Concerns

The following letter was sent to our President but is intended for all RARA members.

Dear Keith,

Congratulations to all the members of the Rochester Amateur Radio Association on the 70th anniversary of the club's founding.

Reaching this milestone is sufficient reason for a club to be proud, but RARA's record of achievements and contributions points to more than mere survival. The members and leaders of the organization have created a record that few other clubs can claim to equal.

Best wishes for RARA's *next* 70 years of outstanding service to amateur radio.

73, Kay WT3P
2nd VP, ARRL

Hamfest Programs — *continued from page 1*

Manager will present this. He will also be updating everyone on the ARRL's progress towards implementing a secure and verifiable e-QSL system. A Question and Answer session will be included.

Atlantic Division Affiliate Club Conference:

Hosted this year by Bill Edger, N3LLR, Atlantic Division Vice Director. This is the ninth annual ARRL Affiliated Club Conference to be held at the Atlantic Division Convention and gives invited representatives of the affiliated clubs a chance to meet with the Atlantic Division leaders. Be sure that your club is represented so they can bring their members back all the information. They can also bring information as to what their club is doing or any concerns that it may have.

DXCC Card Certification:

With Dan Henderson being in Rochester this week-end he has agreed to be available in the ARRL booth to check and certify DX cards towards your awards.

Be sure to watch next month's column to learn more about the programs that are being planned. This is going to be a great Hamfest so don't miss any part of it!

LIFE, ACCIDENT & HEALTH AGENT

MARYKAY VESCO

KC2DPG

310 Commercial Street
East Rochester, NY 14445
716 381-7773 Fax/Phone



P&C BROKER NOTARY PUBLIC

Take This Old Receiver. . .

Bill Hopkins, AA2YV

If you are old(er), you want it to work, and if you are younger, you really want to know how it works. At least, you want to know what it looks like inside.

You ever heard of a BC-348 receiver? Well, I had, out at the Antique Wireless Association Museum and Annex, where the "older" boyz meet every week to log in all the equipment that comes regularly to the AWA. One day I was gazing up at a military receiver, the type someone said was stacked in threes into the B-17 bombers of WWII. Right next to it stood a transceiver, covered with Russian lettering, that the US had built for Soviet tanks on the Eastern Front.

Around the corner came George MacFarlane, (N2KQE). He took one look at me, then at the gear, and his memory and human audio amplifier turned on the B+. "Did you know that the military didn't want those BC-348's in the hands of hams after the war? They wanted new technology to be developed, but this old gear lying around had legs. One guy I know said he took a 348 and buried it at night in the ground on his military base just to save one for himself."



BC-348

Well, since I was in and around those old planes after the war - Dad was a CAA/FAA man - I am amazed how a radio operator could have heard a signal above the ear-droning din of the motors, even with cans on his ears. "I wonder what kind of reception these 348's had," I muttered.

"They were pretty good in their day," George said. "Of course there were many models, like that 348Q there. They all ran off of a 28dc-volt dynamotor right inside the box, and received from 200Kc up to 18Mc. The broadcast band was missing; maybe they didn't want the boys to listen to music and news from back home."

Anyway, I hauled down the 348 - got permission,

of course - and opened up the box. Wow, what an indestructible set of RF, IF and VFO boxes it had lined up! And the dial mechanism was something out of Charlie Chaplin's *Modern Times*. "I've got to get one of these, but I'd have to build a power supply for it."

Then I forgot about it.

Two?, no, three years ago I took off work early to catch the last hour or two of the AWA Annual Conference *Flea Market* here in Rochester. Most sellers had packed up, and throwable junk was piled at the light poles. A fellow from Pennsylvania was holding out to the end, with not much left. And bam! Right there. On the pavement under his table stood a BC-348! "How much you want for that radio? It looks pretty heavy."

"Yes, it is. Don't know if it works. Oh, say twenty-five dollars."

"Hm..." I put my free junker GE taxi FM radio down, flipped into my wallet and frowned: "I have only fifteen."

Pause. Well, you've lost that purchase!; what a cheapskate you are; not a chance," I thought.

"OK, I'll take fifteen."

It was the BC-348R; it had a PS and an S-meter. Back home I tested the PS caps, got my WWII earphones down and plugged it in. Radio! Now I've got to spiff this thing up, and make those modifications work even better, I thought. (This is what every tinkering ham says.)

Promptly I had the thing apart. All the aluminum inside was dark brown, especially the large tuning cap. Tells me the post-WWII fella did a lot of listening and smoking, smoking and listening. So I practically dismantled the thing and threw it into the dishwasher in the kitchen, with plastic bags on the small IF's and BFO. (The XYL was out.) It came out a beauty, just like what Rosie the Riveter saw when she packed and shipped it. But then it stayed in pieces and went onto the other hamgear shelf in the basement for a good year.

I'll get back to it.

(Continued next Month)

VE Testing Session

by the Rochester DX Association
ARRL VE team

Tuesday evening

March 20th

6:30 PM

111 Westfall Road

Auditorium

Spring 2001 License Class Update

Tim Magee, WB2KAO

The class registration on 2/12/01 will already have taken place by the time you read this article. I will be keeping you posted on class progress as we proceed toward completion with testing on May 14th. I want to thank my instructors for their time and dedication to the project. From all indications we have plenty of interest in all of the classes. In the next article, I will update as to the specific enrollment in each class.

ARRL Visit — *continued from page 1*

activities to deal with it. For example it actively lobbies Congress and state legislatures to protect hams from antenna restrictions generated by local governments and homeowners associations. Also, the ARRL is partnering with companies in the communications industry to educate schoolteachers about the vocational aspects of amateur radio. There are many, many more ARRL programs that you're probably aware of.

The organization is looking for your input on other issues. For example should ARRL lobby the FCC to eliminate or retain the CW licensing requirement for HF privileged licenses? Scott has gathered interesting data about this from 8 clubs in WNY. He will share his results. He has also studied the NYS bill covering antenna restrictions and can give you his insight. That bill will be reviewed in the NYS legislature this year. He has many more interesting items to share.

Please listen to, or join into this information exchange at our March 2nd meeting. It is 8:00 PM in the Henrietta Fire Hall, 3129 East Henrietta Rd.

Historical Bits

Ed Gable, K2MP

1914 — ARRL is formed by Hiram Percy Maxim and Clarence D. Tuska

1933 — First Field Day contest

1952 — The 15 Meter band is opened

RARA Family Picnic
June 16, 2001
Creekside Cabin
Ellison Park

RARA RAG 6

China Clippings

Ron Roach, W2FUI

HANGZHOU CITY, CHINA: A close friend of BZSHAN enlisted my help the other evening to visit some of the competition to his net bar near Hangzhou University. These visits gave me an opportunity to witness the installations that substitute for private ownership of computers in the Peoples Republic of China.

An interesting number of entrepreneurs are setting up computer centers, consisting of twenty to forty units, connected through a server, to the single major Internet Service Provider, operated by China Telechon, which is government owned. Most of these computer centers or "net bars" cluster near colleges and universities catering to the students who take advantage of their services.

Most net bars charge a fee of three to four yuan (\$0.35 to \$0.50) per hour, depending on the speed of the machine. High speed internet connection is in use since China Telechon spent five years setting up fiber optics networks to operate as a government monopoly for the 10,000,000 current users of the Internet. Competition, however, has recently begun to erode some of this monopoly.

When I questioned my Chinese friends regarding the long term use of the computer centers, or net bars, in China, I was reminded that the cellular telephone is the communications giant rather than the household hard wired telephone, guaranteeing a thriving net bar phenomenon for years to come.

Next month we'll talk about the transition from government ownership to private enterprise in the high tech electronic and computer industry.

Public Service 2001

Ed Holdsworth, N2EH

The following dates are those that I have as of now. They may change and if they do I will get the correct dates published in the RARA RAG as soon as they become available.

The R. E. Ginna drill does require that any one wishing to work this event is a member of R.A.C.E. S. and has proper county identification. Other than the Ginna drill, anyone is welcome to volunteer whether they are a member of RARA or not. If you have not worked on any event before, I am sure you will enjoy these events.

If you need more information, call me at 624-1929.

R. E. Ginna Radiological Pre Drill - May 2, 2001

R. E. Ginna Radiological Drill - June 6, 2001

Tour de Cure - June 9, 2001

Stuart Horse Trials - July 28, 2001

Walnut Hill Carriage Show - August 15 to 20, 2001

RIT Amateur Radio Club Hamfest

Attention Rochester area amateur radio enthusiasts: the Rochester Institute of Technology Amateur Radio Club will be holding its first annual Spring RIT Hamfest and Computer Show this coming March. Held indoors on the RIT campus in Henrietta, the fest will include Rochester-area vendors, several forums, and of course a flea-market area!

Doors will open to the public at 8:00 AM on March 17, 2001 and all areas of the fest will remain open until 4:00 PM. Exhibitors and flea-market vendors are invited to arrive at 7:00 AM to set up. General admission tickets will be available only at the door, at a price of \$3 for the general public and \$2 for students. Table spaces in both the flea-market room and the exhibit room will be \$8 per table, and must be purchased before March 1st by sending a check for the table fee plus a self-addressed, stamped envelope to The Rochester Amateur Radio Club, 70 Lomb Memorial Drive, Rochester, NY 14623. Make checks payable to "RIT Amateur Radio Club".

To get to the Hamfest, take NY-252 (Jefferson Road) to the RIT campus, about a mile West of Southtown Plaza. From the main entrance, bear right onto Ward Road (by the electronic sign) and park in the G or H parking lots. Just follow the signs from there to building 4!

Please join us for the first Rochester-area Hamfest of the year, and help support the RIT Amateur Radio Club! Feel free to contact us with any questions at (716) 475-7467 or by e-mailing k2gxt@rit.edu.

RARA HOTLINE
(716) 442-0587
24 HOURS A DAY

**AUTO ACCIDENTS
WILLS and ESTATES
REAL ESTATE
SOCIAL SECURITY
DISABILITY**

Sherwood Snyder

Attorney At Law

546-7258 • 183 E. Main St.
W2KFU Suite #1024

DX/Contesting Report

Ed Gable, K2MP

Last month's big four on the bands; 3Y0C on Bouvet, YK9A from Syria, the Comoros gang as D68C, and St. Peter and Paul Rocks signing PW0S was enough to satisfy any DX'er trying to build up his or her band/mode totals. This month's scheduled DX is less enticing but keep an ear out for Niger, 5U7, by a group of Italian Ops through March 12th. Fiji (3D2) will be well represented by the Conway Reef Dxpediton stopping there on their way home until March 8th. Those of you needing to log Malpelo Island (HK0) will have two chances. One by well known South American DX'er Pedro, HK3JJH, in March and another in April by Ely, PT7BZ.

The next meeting of the RDXA is March 20th, 7:30 PM at the usual 111 Westfall Road site. This will also be a VE Testing Session. Visit the RDXA Web site at www.qsl.net/rdxa. (Tnx ARRL and OPDX Bulletin)

RARA Amateur Radio License Testing

**All Elements Needed
To Complete a License
Class**

**Saturday
March 17, 2000**

**Registration - 8:30AM
Testing - 9:00AM**

**Social Services Building
111 Westfall Rd., Rochester**

**Inquires (716) 334-4488
aa2fo@rpa.net**

RARA RAG 7

Savannah Bank, N.A.

3140 Monroe Avenue
(Across from Pittsford Wegmans)
(716) 899-4000

LOCALLY OWNED AND MANAGED
WITH FRIENDLY CONVENIENT SERVICE

8:30 AM — 7:00 PM Mon. — Fri.
8:30 AM — 1:00 PM Saturday
Drive-Thru ATM and Tellers

ASK ABOUT OUR PRODUCT SPECIALS

Donald R. Aldred
Rochester Region Executive
WA20XE

GLENWOOD

594 HAGUE STREET
ROCHESTER, NY 14606

HOURS:

M-F 9:00 AM - 5:00 PM

PH: (716) 328-1600

FAX: (716) 328-3630

ELECTRONIC COMPONENT PARTS (NEW AND NEW SURPLUS)

- LARGE SELECTION
- HIGH QUALITY
- LOW PRICES
- IN-DEPTH INVENTORY

WE STOCK THE FOLLOWING:

AC CORDS
CAPACITORS
COAX CABLE
CONNECTORS
DIODES
ENCLOSURES
FANS
FUSES
FUSEHOLDERS

IC'S
LAMPS
LED'S
MOTORS
POTENTIOMETERS
RELAYS
RESISTORS
SCR'S
SHRINK TUBE

SOLDER
SWITCHES
TRANSISTORS
TRIACS
TRIMPOTS
VARIABLE CAPS
WIRE/CABLE
ZENER DIODES
LOTS MORE

TRY GLENWOOD FOR ALL YOUR COMPONENT REQUIREMENTS

FULL LINE DISTRIBUTORS FOR

NTE
PRB
GC/THORSEN
SL WABER
WAHL

Replacement Semi's
VCR Belts & Accy
Tools & Chemicals
Outlet Strips +
Soldering/Drilling
Tools & Accy

TYTON
PROTEK
MUELLER
GOLDSTAR
PALADIN

Cable Ties
Test Gear
Test Leads
Test Gear
Tools